

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD AND SPECIFICATIONS**

WASTE UTILIZATION

(Acre)
CODE 633

DEFINITION

Using agricultural wastes such as manure, wastewater, or other organic residues.

responsible for securing any and all required permits or approvals related to this standard and for operating and maintaining any components in accordance with applicable laws and regulations.

PURPOSES

This practice may be applied as part of a conservation system to support one or more of the following:

- 1) Protect water quality.
- 2) Provide fertility for crop, forage, or fiber production and forest products.
- 3) Improve and maintain soil quality.
- 4) Provide feedstock for livestock.
- 5) Provide a source of energy.

Appropriate setbacks and buffer areas will be established and maintained on land application areas according to state or local regulations. Separation areas will be established along losing streams, sinkholes, caves, wells, abandoned wells, permanent and intermittent flowing streams, water storage impoundments, property lines, dwellings, or public use areas, as a minimum.

Records of the use of organic materials shall be kept a minimum of five years or longer if required by federal, state, or local regulations.

Additional Criteria to 1) Protect Water Quality or 2) Provide Fertility for Crop, Forage or Fiber Production and Forest Products

CONDITIONS WHERE PRACTICE APPLIES

This practice applies where agricultural by-products including animal manure and contaminated water from livestock and poultry operations; composted dead animals, solids and wastewater from municipal treatment plants; and agricultural processing residues are generated and/or utilized.

Using agricultural organic materials as a nutrient source for the production of crops, forage, or fiber shall be a component of a conservation plan and an integral part of an overall management system to protect water quality.

All nutrients shall be applied according to the specific requirements of the NUTRIENT MANAGEMENT (590) standard and specifications.

CRITERIA

General Criteria Applicable to All Purposes

All federal, state, and local laws, rules, and regulations governing manure management, pollution abatement, and health and safety shall be strictly followed. The owner or operator shall be

Additional Criteria to Improve or Maintain Soil Quality

Organic nutrient products shall be applied at rates not to exceed crop nutrient requirements or desired salt concentrations and shall be applied at times when the manure can be incorporated by

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version, contact the Natural Resources Conservation Service.

appropriate means into the soil within 72 hours of application.

Additional Criteria to Provide Feedstock for Livestock

Poultry litter to be used for feedstock shall be processed in a manner to minimize contamination and preserve its feed value. Acceptable methods of processing shall include deep stacking, ensiling, dehydrating, and extrusion-pelleting that obtain a minimum sustained temperature of 145° F. Poultry litter stored for this purpose shall be covered.

The feed product shall be free of harmful pathogens, pesticide residues, parasites, and heavy metal or drug residues above levels permitted by State and Federal statute or regulation which could be harmful to animals or could result in residues in human food products.

A qualified animal nutritionist shall develop rations that utilize organic products.

Additional Criteria to Provide a Source of Energy

All energy producing components of the system shall be included in the waste management plan and provisions for utilization of residues of energy production developed and identified.

Where the residues of energy production are to be land applied for crop nutrient use or soil conditioning, all criteria for these purposes listed above shall apply.

CONSIDERATIONS

The effect of applying this practice on the water budget should be considered, particularly where a shallow ground water table is present or in areas prone to runoff.

Consider the impact on air quality during organic nutrient applications on agricultural land. Air quality on land application sites may be impaired by excessive dust, ammonia emissions, and odors.

Minimize the impact of odors of land applied organic nutrients by making applications at times when temperatures are cool and air movement is minimal. If there is air movement occurring, apply

organic nutrients when the wind direction is away from neighbors.

Municipal by-products are not to be applied to food crops that are directly consumed by humans.

Organic nutrients should be applied as close to the time of crop nutrient need as possible. Spring and summer applications are best as the release of nutrients through mineralization are more available during the growing season of most crops and forages.

Agricultural organic nutrients may contain pathogens and other disease organisms. Organic nutrients should be utilized in a manner that minimizes the potential to cause disease and other illnesses.

Priority areas for land application of organic nutrients should be on gentle slopes located as far as possible from waterways including tile systems that directly outlet into water courses. When organic nutrients are applied on sloping land or land adjacent to waterways (areas of concentrated runoff), other conservation practices should be installed to reduce the potential for offsite transport of nutrients to surface and ground water.

It is preferable to apply organic nutrients on pastures and hayland soon after cutting or grazing before regrowth has occurred.

Reduce nitrogen volatilization losses associated with land application of organic nutrient products by incorporating within 24 hours. Cumulative losses of phosphorus are also reduced by incorporation. Consider the effect of incorporation tillage on potential soil erosion losses.

Areas with flood frequencies greater than once every 10 years or areas with high water tables should not be the only land available for land application of organic nutrients.

PLANS AND SPECIFICATIONS

Site specifications for establishment and maintenance of this practice shall be prepared for each field or treatment unit according to the Criteria, Considerations, and Operation and Maintenance described in this standard.

A management plan will be developed and will account for the utilization or other uses of all animal by-products produced. All organic nutrient application areas shall be clearly indicated on a plan map.

Site specifications shall be recorded using approved specification sheets, job sheets, narrative statements in the conservation plan, or other acceptable documentation.

The management plan is based on requirements of this standard and any applicable federal, state, and local regulation. Changes to any of these requirements may necessitate a revision of the management plan.

A revision of the management plan is needed when the operation significantly changes due to:

- animal numbers;
- animal class, type or size;
- feed management; and
- organic by-product handling or storage.

OPERATION AND MAINTENANCE

Records shall be kept for a period of five years or longer and will include:

- * Quantity of manure and other agricultural organic nutrients produced and the nutrient content or feed quality based on laboratory testing;

- * Soil test results for all fields where organic nutrients will be land applied;

- * Dates and amount of organic nutrients applied when utilization involves land application and the dates and amount of materials removed from the system due to feeding, energy production, or export from the operation;

- * Organic nutrient application rates, methods, and timing including weather conditions at time of application;

- * Crops grown and the realistic yield goal planned and achieved on each field;

- * Results of any specific testing (petiole tests, stalk nitrate tests, etc.) to identify nutrient needs; and

- * Records of the application equipment and calibration methods used.

Include the dates of periodic reviews including maintenance of equipment and facilities used to transport, apply, or use the organic by-products. Periodic reviews are recommended annually to determine if adjustments or modifications to the plan are needed. As a minimum, standard requirements will be revised with each soil test cycle.

Include items to be inspected and maintained and a general time frame for making necessary repairs.